ENERGY STAR Imaging Equipment version 2.0 Draft Test Method – Comments from EU

We appreciate the efforts towards a revised ENERGY STAR Imaging Equipment test method and specification. We submit in the following our comments to the draft test method and to the proposed changes in functional adders for OM products. Due to the current vacation period in many EU Member States, there might come additional comments at a later stage that we subsequently will submit to the US EPA.

Comments to the draft test method

<u>Line 29 ff – Low-voltage dc input power</u>: Products falling under this category should be products without included EPS; therefore "e.g." should be removed. Furthermore, we think that this method is problematic regarding the conversion efficiency to be applied. The method suggested will allow the manufacturers to select a very efficient AC-DC conversion, where in practice less efficient power supplies would be used. We suggest to prescribe a standard conversion efficiency factor from AC to DC. Then at least the dc powered products could be compared in fair way.

<u>Line 104 ff – Network or data connections for use in test</u>: We support the change of the test method to define the connection. However, we are not sure if it is correct that Wi–Fi should be placed lower for the second column compared to the first and we recommend to get further industry feedback on the typical use of the products. Furthermore, the column headings should be very clear. As it appears now, all MFDs incl. professional TEC MFDs fall under the first column, which we think was not intended.

<u>Line 113 – Fax machines</u>: We recommend to define more clear what is meant here. It is written "incorporating fax machines", while the intention probably is "incorporating fax capability" as the note indicates.

<u>Line 116 – Fax machines</u>: It is not clear what is meant by "Unless sending jobs via phone line..". Please edit or detail.

<u>Line 128 – Initialization of the UUT</u>: Please incorporate a requirement that the UUT should be tested as shipped apart from the preparation of the hardware stated in line 131.

<u>Line 134 – Driver for testing</u>: We agree that the test should be performed with the default driver. We recommend that the driver name and version should be reported for the registration. By this, the test lab could test using the same driver and the consumer would know which driver was used for achieving the reported consumption.

<u>Line 140 - Default delay times</u>: We believe that the default delay times should not be adjusted, but instead correspond to the as-shipped values.

<u>Line 144–147 – Auto-off settings</u>: We are not sure of the rationale of disabling the auto-off. Furthermore, it is not clear what is meant in line 147–148 to enable auto-off, when it is already enabled as shipped.

<u>Line 149 – User-controllable anti-humidity features</u>: We are neither sure of the rationale of disabling this feature. We think that typically the consumer will not disable it if the product has been shipped with the feature enabled in spite of no need and it would be more fair if the resulting energy consumption was reported.

<u>Line 150 – Pre–conditioning time</u>: We suggest that a 1 hour rest period ahead of initial pre–conditioning time is sufficient to remove any potential benefits from pre–warming of components. A further 1 hour is provided for within the TEC test methodology (step 5).

<u>Line 152 ff - Battery in product</u>: We recommend that option ii should only be possible to choose if the battery cannot be removed.

<u>Line 181 – Print jobs over non-networked connections</u>: It seems that this exception is not in accordance with the requirements in Table 6. Else the text here should be clearer.

<u>Line 213 and 249 – Service/maintenance modes</u>: Even though this has been carried over from the current test method, we think it is worthwhile to consider the appropriateness. E.g. if a product is badly designed and therefore needs often calibration during printing, this should be reflected in the reported energy consumption and therefore included in the test method. However, it might be difficult to define it consistently.

<u>Line 227 - TEC step 2</u>: Ready power demand would be a useful measurement at this stage especially for those products that are not used as frequently as the TEC test procedure assumes. This can help organisations better understand energy use of their own products under their own usage conditions.

<u>Line 227 - Print capability and auto-off</u>: We think it would be good to consider inclusion of the auto-off mode here if there are or will come products with auto-off.

<u>Line 227, 231 and 252 - Wake up time</u>: It would be useful to measure wake up time from sleep or auto-off mode to first image coming out of product. A long time period here could encourage users to disable power management functionality.

Comments to the proposed changes in functional adders for OM products

We agree in removing the secondary functional adders and in reducing the levels for the primary adders.